

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-11. (canceled).

12. (new): A spark plug comprising: an insulator having a through-hole formed in an axial direction; a terminal attachment disposed on one end side of said insulator; a center electrode disposed on other end side of said insulator; and an electrically conductive connection layer disposed in said through-hole for electrically connecting said terminal attachment and said center electrode to each other, said electrically conductive connection layer including at least one electrically conductive sealing layer connected to at least one of said terminal attachment and said center electrode,

wherein said electrically conductive sealing layer is made of electrically conductive glass containing a glass component and a metal component, the metal component being in an amount larger than 30 mass% and smaller than 75 mass% of the electrically conductive glass, and the metal component comprising Cu-Zn alloy in an amount of larger than 10 mass% of the metal component.

13. (new): The spark plug as claimed in claim 12, wherein substantially all of the Zn contained in said metal component is alloyed.

14. (new): A spark plug comprising: an insulator having a through-hole formed in an axial direction; a terminal attachment disposed on one end side of said insulator; a center electrode disposed on other end side of said insulator; and an electrically conductive connection layer disposed in said through-hole for electrically connecting said terminal attachment and said center electrode to each other, said electrically conductive connection layer including at least one electrically conductive sealing layer connected to at least one of said terminal attachment and said center electrode, wherein said electrically conductive sealing layer is made of electrically conductive glass containing a glass component and a metal component, and the metal component comprises Cu-Zn alloy in an amount of larger than 50 mass% of the metal component.

15. (new): The spark plug as claimed in claim 14, wherein substantially all Zn contained in said metal component is alloyed.

16. (new): A method for producing a spark plug including an insulator having a through-hole formed in an axial direction, a terminal attachment disposed on one end side of said insulator, a center electrode disposed on other end side of said insulator, and an electrically conductive connection layer disposed in said through-hole for electrically connecting said terminal attachment and said center electrode to each other, said electrically conductive connection layer including at least one electrically conductive sealing layer connected to at least one of said terminal attachment and said center electrode, said method comprising the steps of: filling said through-hole of said insulator with electrically conductive glass powder containing glass powder and metal powder, the metal powder containing Cu-Zn alloy powder in an amount

of larger than 10 mass% of the metal powder; and softening said electrically conductive glass powder to form said electrically conductive sealing layer,

wherein said electrically conductive glass powder contains said metal powder in an amount larger than 30 mass% and smaller than 75 mass% of the electrically conductive glass powder.

17. (new): The method for producing a spark plug as claimed in claim 16, wherein said metal powder contains said Cu-Zn alloy powder in an amount of larger than 50 mass% and smaller than 75 mass% of the metal powder.

18. (new): The method for producing a spark plug according to claim 16, wherein said metal powder does not contain any non-alloyed Zn powder.

19. (new): The method for producing a spark plug as claimed in claim 16, wherein said Cu-Zn alloy powder contains Zn in an amount of 5 to 40 mass% of the Cu-Zn alloy powder.

20. (new): The method for producing a spark plug as claimed in claim 16, wherein said electrically conductive glass powder contains a semiconductor inorganic oxide, said semiconductor inorganic oxide comprising at least one member selected from the group consisting of In, Sn, Cr, V and Ti.

21. (new): The method for producing a spark plug as claimed in claim 20, wherein said electrically conductive glass powder contains said semiconductor inorganic oxide in an

amount smaller than 10 parts by mass when a total amount of said glass powder and said metal powder is 100 parts by mass.

22. (new): The method for producing a spark plug as claimed in claim 16, wherein the mean particle size of said metal powder is not smaller than 5 μm and not larger than 40 μm .

23. (new): A method for producing a spark plug including an insulator having a through-hole formed in an axial direction, a terminal attachment disposed on one end side of said insulator, a center electrode disposed on other end side of said insulator, and an electrically conductive connection layer disposed in said through-hole for electrically connecting said terminal attachment and said center electrode to each other, said electrically conductive connection layer including at least one electrically conductive sealing layer connected to at least one of said terminal attachment and said center electrode, said method comprising the steps of: filling said through-hole of said insulator with electrically conductive glass powder containing glass powder and metal powder, the metal powder containing Cu-Zn alloy powder in an amount of larger than 50 mass% of the metal powder; and softening said electrically conductive glass powder to form said electrically conductive sealing layer.

24. (new): The method for producing a spark plug according to claim 23, wherein said metal powder does not contain any non-alloyed Zn powder.

25. (new): The method for producing a spark plug as claimed in claim 23, wherein said Cu-Zn alloy powder contains Zn in amount of 5 to 40 mass% of the Cu-Zn alloy powder.

26. (new): The method for producing a spark plug as claimed in claim 23, wherein said electrically conductive glass powder contains a semiconductor inorganic oxide, said semiconductor inorganic oxide comprises at least one member selected from the group consisting of In, Sn, Cr, V and Ti.

27. (new): The method for producing a spark plug as claimed in claim 26, wherein said electrically conductive glass powder contains said semiconductor inorganic oxide in an amount smaller than 10 parts by mass when a total amount of said glass powder and said metal powder is 100 parts by mass.

28. (new): The method for producing a spark plug as claimed in claim 23, wherein the mean particle size of said metal powder is not smaller than 5 μm and not larger than 40 μm .